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L3: Entry 10 of 26

File: JPAB

Jun 29, 1999

DOCUMENT-IDENTIFIER: JP 11170397 A

TITLE: THRUST WASHER FOR HIGH SPEED AND HIGH SURFACE PRESSURE
SLIDE

FPAR:

SOLUTION: The thrust washer for a high speed and high surface pressure slide is formed of a resin composition containing 10 to 80 pts.wt. of carbon fiber and 2 to 50 pts.wt. of perfluorofluororesin such as a polytetrafluoroethylene resin or the like to 100 pts.wt. of polyallylene sulfide resin such as polyphenylene sulfide resin or the like. The washer may be formed of a resin composition mixed with 1 to 30 pts.wt. of a molybdenum compound. In the case of manufacturing a thrust washer for a high speed and high surface pressure slide having an oil hole formed to penetrate a groove communicating with an outer periphery from an inner periphery of an annular washer or front and rear surfaces of a thrust washer, a sprue is disposed on an inner or outer periphery of a mold to injection mold.

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L3: Entry 14 of 26

File: DWPI

Jun 13, 2000

DERWENT-ACC-NO: 1999-106137

DERWENT-WEEK: 200037

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TITLE: Wrapped slide bearing bush - has PTFE-based slide layer including 1-3% by volume carbon fibres

ABTX:

The slide bearing bush consists of a compound bush material, and has a PTFE-based slide layer. The slide layer includes 1-3% by volume of carbon fibres, and the fibres are aligned mainly in a preferred direction relative to the compound bush material. The relative speed of bush and slide partner is mainly at right angles to the preferred direction.

ABTX:

The carbon fibre content of the slide layer is between 1,5 and 2,5% by volume, and a metal filler content is between 18 and 22% by volume. The preferred direction of the carbon fibres extends in circumferential direction of the slide bearing bush.

TTX:

WRAP SLIDE BEARING BUSH PTFE BASED SLIDE LAYER VOLUME CARBON FIBRE

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L3: Entry 20 of 26

File: DWPI

May 20, 1998

DERWENT-ACC-NO: 1991-075762

DERWENT-WEEK: 199825

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TITLE: Slide bearing with dynamic pressure grooves - has grooved PTFE composite sheet adhered to cylinder inner surface

ABTX :

A bearing comprises a resin sheet (22) with PTFE as the main component bonded to the inner surface of an outer cylinder (21), and grooves formed in the sheet inner surface for generating a dynamic pressure. There may be a number of sheets bonded to the cylinder inner surface at set axial intervals.

ABTX:

The grooves are pref. formed by plastic working, and the sheet is wound into cylindrical shape and inserted into the cylinder with adhesive between sheet and cylinder, and a cylindrical body is inserted into the sheet and removed after the adhesive has hardened. The sheet may contain material to improve wear-resistance, e.g. graphite, carbon fibre, MoS2, polyimide or glass fibre.

ABEQ:

A bearing with dynamic pressure grooves comprising: an outer cylinder; a sheet made of a resin containing a PTFE as a main component and bonded to an inner peripheral surface of said outer cylinder; and a plurality of grooves for generating a dynamic pressure formed in an inner surface of said sheet.

ABEQ:

A bearing comprises a resin sheet (22) with PTFE as the main component bonded to the inner surface of an outer cylinder (21), and grooves formed in the sheet inner surface for generating a dynamic pressure. There may be a number of sheets bonded to the cylinder inner surface at set axial intervals.

ABEQ:

The grooves are pref. formed by plastic working, and the sheet is wound into cylindrical shape and inserted into the cylinder with adhesive between sheet and cylinder, and a cylindrical body is inserted into the sheet and removed after the adhesive has hardened. The sheet may contain material to improve wear-resistance, e.g. graphite, carbon fibre, MoS2, polyimide or glass fibre.

TTX:

SLIDE BEARING DYNAMIC PRESSURE GROOVE GROOVE PTFE COMPOSITE SHEET
ADHERE CYLINDER INNER SURFACE

ADHERE CYLINDER INNER SURFACE

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L3: Entry 13 of 26

File: EPAB

May 27, 1987

DOCUMENT-IDENTIFIER: EP 223268 A1

TITLE: Method for producing a multi-layer slide bearing material needing little maintenance.

FPAR:

1. Process for producing a maintenance-free multilayer sliding bearing material, consisting of a combination of a metal backing made of steel, bronze or a high-strength aluminium alloy, provided with a rough primer layer (2), preferably a 0.1 to 0.35 mm thick, porous sinter-bonded bronze layer, iron layer, or aluminium alloy layer, and a bearing layer (3) consisting of a matrix (4) of polytetrafluoroethylene (PTFE), with which material the valleys of the rough primer layer are also filled and which may also optionally contain friction-reducing and wear-inhibiting additives of lead, molybdenum disulphide, graphite, carbon fibres, glass fibres, ceramic fibers, glass spheres, hollow ceramic spheres, barium sulphate, zinc sulphide, lead borosilicate, individually or in combination in a quantity of 5 to 40 % weight, characterized in that the PTFE, which has a grain size of $\leq 35 \mu m$, is moulded with an admixed extrusion assisting agent into a preform, said preform is extruded into a strip 1.5 to 5.0 mm thick, the strip is formed into a sheet 0.5 to 3.0 mm thick by conditioning calendering, the sheet, which is heated to 70 to 90 degrees C, is rolled on to the rough primer layer of the metal backing, which has been heated to 130 to 180 degrees C with a decrease in thickness to 0.1 to 1.0 mm, and subsequently the PTFE is sintered by continuous heating to approximately 400 degrees C and maintaining at this temperature for a short time.

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L3: Entry 12 of 26

File: EPAB

Dec 2, 1993

DOCUMENT-IDENTIFIER: DE 4217319 A1

TITLE: Low cost no wear slide bearing for shaft - has inner and outer concentric FRP sleeves one being bonded to intermediate low friction layer, and it is wound e.g. directly on to shaft

FPAR:

A slide bearing consists of an outer bearing part, a low friction layer of non-wetting material and an inner bearing part, these three parts are made into one unit, with the low friction core part sufficiently thick and in sufficient concn. to ensure that the assembly divides between at least the one inner or outer part and the low friction layer in service. The low friction layer is pref. made of PTFE yarn embedded in epoxy resin. The example shown consists of an inner FRP part (1), a low-friction intermediate layer (2) and an outer FRP layer (3). The low-friction layer (2) can also be fibre-reinforced and it can be firmly bonded to either the inner (1) or the outer (3) part. Moreover it (2) contains PTFE or other non-wetting low-friction material, it can consist of wound PTFE filaments. ADVANTAGE - The prod. is inexpensive. No wear is produced between the shaft used and the bearing. The assembly is fitted complete with its shaft.

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L3: Entry 15 of 26

File: DWPI

Sep 27, 1995

DERWENT-ACC-NO: 1997-364407

DERWENT-WEEK: 199734

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TITLE: Filling-type composite sealing pad and fluoro plastic
washer

ABTX:

The composite sealing pad and washer of fluorine plastics comprises copolymer of polyperfluoro-ethyl-propylene or ethylene and tetrafluoroethylene and the mixture of polytetrafluoroethylene and inorganic fibre. The pad and washer masher manufacture includes thermal compounding and moulding. The pad and washer have high thermodeforming temperature, modulus of elasticity, anticorrosion power and sealing performance, long service life, high finished rate of product and are of low cost.

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L3: Entry 18 of 26

File: DWPI

Jun 30, 1993

DERWENT-ACC-NO: 1993-207894

DERWENT-WEEK: 199724

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TITLE: Plain bearing material for bearing bush or thrust washer - comprises semi-aromatic polyamide, glass fibre, graphite, PTFE and silicon oil

ABTX:

Plain bearing material has a compsn. comprising (a) 40-60 wt.% semi-aromat ic polyamide; (b) 15-25 wt.% glass fibre; (c) 10-20 wt.% graphite; (d) 2-10 wt.% PFTE and (e) up to 5 wt.% silicon oil.

ABEQ:

A plain bearing material having a composition comprising: 45 to 60 weight per cent of semi-aromatic polyamide, 15 to 25 weight per cent of glas fibre, 10 to 20 weight per cent of graphite, 10 to 20 weight per cent of polytetrafluoroethylene, and up to 5 weight per cent of silicon oil.

ABEQ:

A plain bearing material having a composition comprising 45 to 60 weight percent of semi-aromatic polyamide, 15 to 22 weight percent of glass fibre, 10 to 20 weight percent of graphite, 10 to 20 weight percent of polytetrafluoroethylene, and up to 5 weight percent of silicon oil.

ABEQ:

The plain bearing material has a compsn. comprising 45-60 wt.% of semi-aromatic polyamide (I), 15-25 wt.% of glass fibre, 10-20 wt.% of graphite, 10-20 wt.% of PTFE, and up to 5 wt.%, pref. 1-3 wt.%, of silicon oil.

TTX:

PLAIN BEARING MATERIAL BEARING BUSH THRUST WASHER COMPRISE SEMI AROMATIC POLYAMIDE GLASS FIBRE GRAPHITE PTFE SILICON OIL